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Growth still slow in '89, improving in '90

The persistent strength of the national economy through the final quarter of 1988 surprised a number of analysts. The expansion, which began in late 1982, continued alive and well as over-the-year growth in inflation-adjusted Gross National Product was a solid 3.8 percent. This was the highest rate of growth since the 6.8 percent gain recorded in 1984.

Meanwhile in Arizona, the economy in 1988 performed at a pace best described as sluggish. The state economy grew, but slowly. Inflation-adjusted gross state product during the year expanded at an estimated 1.3 percent, only a third of the national rate of output. While the national unemployment rate was falling, Arizona's unemployment rate crept upward, averaging 6.3 percent for the year.

Arizona job creation lagged the national pace as well. While national wage and salary employment grew 3.6 percent in 1988, Arizona's employment grew by 1.8 percent. Arizona finished the year ranked 42nd among all states in the rate of growth of nonagricultural wage and salary positions.

THE NATIONAL SCENE

Eight years ago at this time, Ronald Reagan pushed for personal income tax cuts in the wake of a significant election victory. As the fiscal plan evolved, the original call for expenditure reductions to accompany the tax cuts softened and then disappeared.

Instead, the "Laffer Curve" analysis was used to support the claim that economic growth resulting from the tax cuts would offset lost revenues and in fact, shrink the deficit.

The fiscal "free lunch" did not develop, of course. While national product grew by 78 percent between 1980 and 1988, federal

Quarterly Economic Forecast

debt nearly tripled. Now, President Bush must deal with problems at least partially growing out of policies he described in the 1980 campaign as "voodoo economics."

In a recent address to the Economic Club of Phoenix, Paul McCracken, former member of the Council of Economic Advisors, noted that high levels of borrowing by the Treasury together with private sector needs create a larger demand for funds than domestic savings can cover. The necessary continuing net inflow of savings from abroad is accompanied by a deficit in our balance of payments on current account.

Second, while the 4.6 percent growth in the consumer price index for 1988 was small by the standards of many nations, it was more than double the 2.1 percent average increase experienced during the first two-thirds of this century.

McCracken stressed that a delayed reaction to the inflation threat by the Federal Reserve would have a more severe impact upon the economy. He also pointed out that tighter money would have the effect of slowing the growth of domestic demand, thus helping the trade balance.

THE NATIONAL OUTLOOK

With interest rates rising during the past six months, the resolve of the Federal Reserve to combat inflation seems evident. Therefore, the current national outlook produced by the Economic Outlook Center (EOC) is conditioned by a scenario of rising interest rates through at least the first half of the year.

The EOC outlook for growth in real output for this year is based on the assumption that the Federal Reserve will successfully slow inflation without throwing the economy into recession. Real output in 1989 is projected to grow by 2.4 percent in 1989 and by 2.0 in 1990 (Table 1). The forecast reflects immense faith in the ability of the Federal Reserve to provide a so-called "soft landing"— slower growth without recession.

One major risk to the forecast is if little progress is made in solving the deficit problem and foreigners move away from holding dollars, the resulting dollar depreciation would require the Fed to raise interest rates in order to lure foreign funds back into the country. The higher rates would set the stage for a recession in 1990.

Alternatively, the Federal Reserve may not be successful in cooling the economy this year. Strong demand for products may keep business investment growing and fur-

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ther tighten labor markets. Resulting inflationary pressures would require slamming on the monetary brakes, again introducing the possibility of a recession lasting two or three quarters.

Even with the favorable "soft landing" scenario, the winter of 1989–1990 is not likely to be a good period for the U.S. economy. Growth in industrial production will be slower, but exports will continue to improve. The unemployment rate is projected to move up slightly in 1990.

A weakening economy during the winter should bring slightly lower interest rates in 1990. The current national forecast calls for modest improvement in housing starts, to 1.5 million.

THE ARIZONA ECONOMY

The 1.8 percent gain in new jobs during 1988 was the weakest growth for Arizona since the recession year of 1982. In contrast, job growth during 1985 was a vigorous 8.2 percent, best in the nation and four times better than the year just completed. Two sectors, construction and FIRE, lost jobs during the year (Figure 1). Mining and services led in job gains.

Personal income figures for the 12 months ending in September of 1988 released by the U. S. Department of Commerce showed that income in Arizona was up 6.6 percent, one full percentage point

TABLE 1

1989 AND 1990 ECONOMIC FORECASTS: UNITED STATES

	Actual *1985*	Actual *1986*	Actual *1987*	Estimated *1988*	Forecast *1989*	Forecast *1990*
Gross National Product						
Billions of 1982 Dollars	3,618.7	3,721.7	3,847.0	3,995.1	4,091.0	4,173.0
Percent Change	3.4	2.8	3.4	3.8	2.4	2.0
Industrial Production (Percent Change)	1.9	1.1	3.8	5.7	3.0	1.5
Net Exports (Billions of 1982 Dollars)	–104.2	–137.5	–128.9	–99.7	–91.2	–70.5
Housing Starts						
Number in Millions	1.74	1.81	1.63	1.49	1.46	1.50
Percent Change	1.7	4.0	–9.9	–8.6	–2.0	2.7
Unemployment Rate (Percent)	7.2	7.0	6.2	5.5	5.4	5.7
Consumer Price Index (Percent Change)	3.5	1.9	3.6	4.1	4.6	4.7
Three-Month Treasury Bill Rate (Percent)	7.5	6.0	5.8	6.7	8.3	8.0
Aaa Corporate Bond Rate (Percent)	11.4	9.0	9.4	9.7	10.3	10.0

TABLE 2

1989 AND 1990 ECONOMIC FORECASTS: ARIZONA

	Actual *1985*	Actual *1986*	Actual *1987*	Estimated *1988*	Forecast *1989*	Forecast *1990*
Gross State Product						
Millions of 1982 Dollars	43,526	46,001	47,000	47,616	48,664	50,173
Percent Change	6.2	5.7	2.2	1.3	2.2	3.1
Personal Income						
Millions of Current Dollars	40,995	44,856	48,466	51,762	55,178	59,151
Percent Change	11.3	9.5	8.0	6.8	6.6	7.2
Retail Sales						
Millions of Current Dollars	16,169	17,187	18,001	18,855	19,741	20,807
Percent Change	8.9	6.3	4.7	4.7	4.7	5.4
Unemployment Rate (Percent)	6.5	6.9	6.3	6.3	6.8	6.5
Wage and Salary Employment						
Number in Thousands	1,278.6	1,338.3	1,385.8	1,410.6	1,437.4	1,473.0
Percent Change	8.2	4.6	3.6	1.8	1.9	2.5
Population						
Number in Thousands	3,203	3,328	3,428	3,507	3,584	3,670
Percent Change	4.0	3.9	3.0	2.3	2.2	2.4
Single-Family Units Permitted						
Number	33,271	34,079	27,360	22,791	19,828	22,743
Percent Change	7.8	2.4	–19.7	–16.7	–13.0	14.0
Multifamily Units Permitted*						
Number	37,312	27,008	12,038	8,853	7,233	7,841
Percent Change	–22.0	–27.2	–55.4	–26.5	–18.3	8.4

*Apartment complexes of three or more units

Source (Tables 1 and 2): Economic Outlook Center, College of Business, Arizona State University.

below the national increase of 7.6 percent. Typically, personal income in Arizona outpaces income growth nationally.

Two questions are on the minds of those who have a stake in the Arizona economy and its future. First, what is the explanation for the current low level of performance? And, secondly, what are the prospects for improvement?

Most analysts attribute the sluggishness in the economy primarily to overbuilding, particularly in multifamily and office structures. The loss of construction jobs and related weak activity in finance-insurance-real estate contributed to a slowdown affecting the entire economy.

After growth in job opportunities dipped in mid-1986, population inflows began to diminish. In turn, fewer in-migrants meant slower growth in demand for goods and services of all types in the local economy.

More broadly viewed, the current weakness is due to the absence of a "driver" for economic growth. While population growth in the 2.5 percent range is much better than the national growth rate of about 1 percent, it is not sufficient to boost job creation even up to the national average.

Further, there are no industries which are "hot" in Arizona at the present time. Nationally, manufacturing for export and capital goods production are the drivers of

TABLE 3

ARIZONA EMPLOYMENT FORECASTS
For 1989-1990 (thousands)

	1985	Percent Change	1986	Percent Change	1987	Percent Change	1988	Percent Change	1989	Percent Change	1990	Percent Change
Manufacturing	181.5	5.1	184.6	1.7	187.4	1.5	189.9	1.3	192.0	1.1	195.3	1.7
Mining	11.8	-9.2	11.0	-7.6	11.4	3.6	12.0	5.3	12.6	5.0	13.0	3.2
Construction	111.5	15.6	113.0	1.3	102.4	-9.4	93.9	-9.0	88.5	-5.8	88.9	0.5
TCPU*	62.9	5.2	65.8	4.6	71.8	9.3	72.7	1.4	73.9	1.7	75.2	1.8
Trade	311.4	8.7	326.3	4.8	340.4	4.3	347.5	2.1	355.8	2.4	364.6	2.5
FIRE**	81.0	12.3	86.7	7.0	92.1	6.2	93.3	-1.3	90.7	-2.8	91.0	0.3
Services	299.9	9.7	325.1	8.4	345.3	6.2	361.2	4.6	376.0	4.1	391.3	4.1
Government	218.0	5.1	224.1	2.8	231.9	3.5	240.3	3.6	248.0	3.2	253.7	2.3
Total Wage and Salary Employment	1,278.6	8.2	1,338.3	4.6	1,385.8	3.6	1,410.6	1.8	1,437.4	1.9	1,473.0	2.5
Total Employment	1,381.0	0.8	1,461.0	5.8	1,510.7	3.4	1,550.0	2.6	1,591.9	2.7	1,646.0	3.5
Total Unemployment	96.0	35.2	109	13.5	101	-7.3	104.0	3.0	109.9	5.7	113.5	3.3
Labor Force	1,477.0	2.5	1,569.6	6.3	1,612	2.7	1,654.0	2.6	1,700.3	2.8	1,753.0	3.1
Unemployment Rate		6.5		6.9		6.3		6.3		6.8		6.5

*Transportation, Communications and Public Utilities

**Finance, Insurance and Real Estate

Source: Economic Outlook Center, College of Business, Arizona State University.

TABLE 4

1989 AND 1990 ECONOMIC FORECASTS: MARICOPA COUNTY

	Actual *1985*	Actual *1986*	Actual *1987*	Estimated *1988*	Forecast *1989*	Forecast *1990*
Consumer Price Index						
Percent Change	5.0	1.3	4.1	4.0	4.8	5.1
Retail Sales						
Millions of Current Dollars	* 9,549	11,346	11,743	12,223	12,819	13,511
Percent Change	12.9	18.8	3.5	4.1	4.9	5.4
Unemployment Rate (Percent)	5.1	5.6	5.2	5.1	5.7	5.3
Wage and Salary Employment						
Number in Thousands	842.1	883.3	912.7	931.3	951.9	975.5
Percent Change	9.1	4.9	3.4	2.0	2.2	2.5
Population						
Number in Thousands	1,811	1,909	1,976	2,021	2,072	2,121
Percent Change	4.9	5.4	3.5	2.3	2.5	2.4
Single-Family Units Permitted						
Number	23,143	23,851	18,012	14,734	12,875	14,768
Percent Change	11.4	3.1	-24.5	-18.2	-12.6	14.7
Multifamily Units Permitted*						
Number	27,271	18,311	9,106	6,160	5,058	5,483
Percent Change	-25.9	-32.9	-50.3	-32.4	-17.9	8.4

*Apartment complexes of three or more units

economic growth. These sectors are not particularly significant in Arizona. Construction, typically one of the most dynamic elements in the Arizona economic mix, has lost workers steadily since the summer of 1986.

Thanks to the strength in the national economy, tourism has been one of the few bright spots in the state. But January 1989 employment in the hotel and lodging sector was up only about 3 percent over the previous year. Last year at this time, jobs in this industry were up nearly 10 percent.

THE ARIZONA OUTLOOK

What are the prospects for improvement in the Arizona economy? The EOC Arizona outlook is based on the "soft landing" assumption for the national economy. That is, it is assumed there is to be no national recession within the next two years, but a period of slow national growth while higher interest rates take their toll in late 1989 or early 1990.

The forecast is also predicated on the view that the Arizona economy will bottom out very soon this year. Population growth, still affected by slowing job opportunities in 1988, dips in 1989 to 2.2 percent, then rises in 1990 to 2.4 percent. The population increase between 1989 and 1990 is about 86,000 persons (Table 2).

Job creation in 1989 is projected to be very similar to 1988, at 1.9 percent. The forecast calls for about 27,000 new nonagricultural jobs in 1989, and over 35,000 more in 1990. By 1990, job creation rises to 2.5 percent per year. This will be only half the long-term Arizona average for job growth, but approximately double the national rate of job creation, which will be less than 2 percent under the "soft landing" scenario. Growth in inflation-adjusted Gross State Product rises to 3.1 percent by 1990, up from 2.2 percent in 1988.

In summary, Arizona should show modest improvement in 1990, after a year in 1989 very similar to 1988. As the national economy slows in 1990, Arizona gross product growth should again better the nation's, but not dramatically so (Figure 2).

One of the key components of the economy, the construction sector, is projected to rebound in 1990. Permits for single-family and multifamily housing will increase slightly after falling further in 1989, when interest rates drift upward. However, the level of activity in 1990 will still be well below that of 1987.

The unemployment rate will peak in 1989, averaging 6.8 percent for the year. Job losses will continue in construction and the finance-insurance-real estate sectors (Table 3) during 1989, but the industries will stabilize in 1990.

The EOC forecast for Maricopa County calls for the economy to grow slowly during 1989 and improve somewhat in 1990 (Table 4). The ongoing infrastructure improvements in freeways and the airport will make the Valley more competitive in the future. In addition, overbuilding has created plenty of office space and affordable housing for potential relocators during the next decade.

– Lee R. McPheters, *Director*
Economic Outlook Center

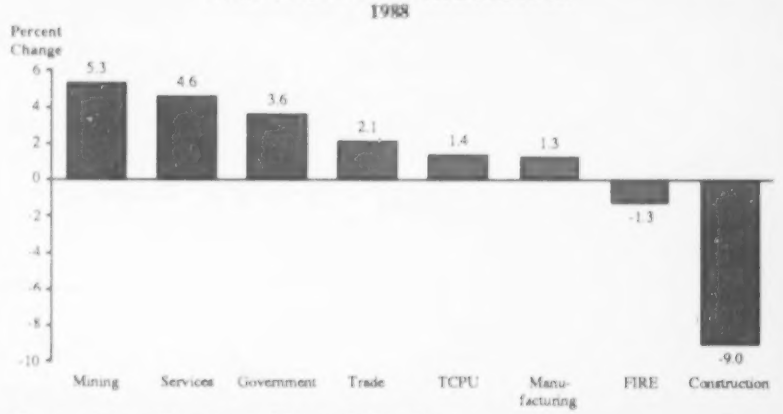
New Format

As you can see, we have revised the format of *Arizona Business*. One of the modifications is the shift to an 8 1/2" x 11" size. This change will reduce our printing costs and will make photocopying easier. Other format changes have been adopted to make our desktop publishing process more efficient and, we hope, the newsletter easier to read. All of us who contribute to the publishing of *Arizona Business* hope that you like our new look and that *Arizona Business* will continue to serve you as a valuable information resource.

– Timothy D. Hogan
Executive Editor

FIGURE I

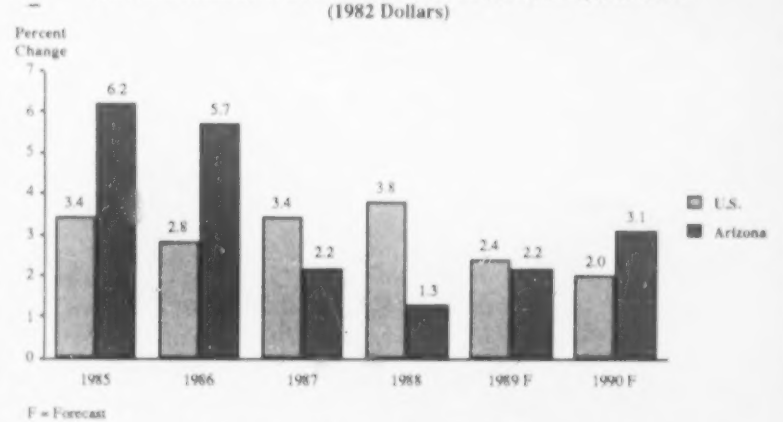
ARIZONA JOB GROWTH BY SECTOR
1988



Source: Arizona Department of Economic Security.

FIGURE II

U.S. AND ARIZONA GROWTH IN GROSS PRODUCT, 1985-1990
(1982 Dollars)



F = Forecast

Source: Economic Outlook Center, College of Business, Arizona State University.

Arizona leading index declines again in January

The Arizona Index of Leading Economic Indicators decreased in January to 109.7. The January number was 0.5 percent below the 110.3 figure for January 1988 and 0.7 percent lower than the 110.5 number for December 1988 (1977 = 100).

Residential building permits, the money supply, production, new orders, delivery times, and employment had a negative impact. Inventories, sensitive prices, and manufacturing hours worked were positive influences. Unemployment insurance claims were unavailable.

ANALYSIS

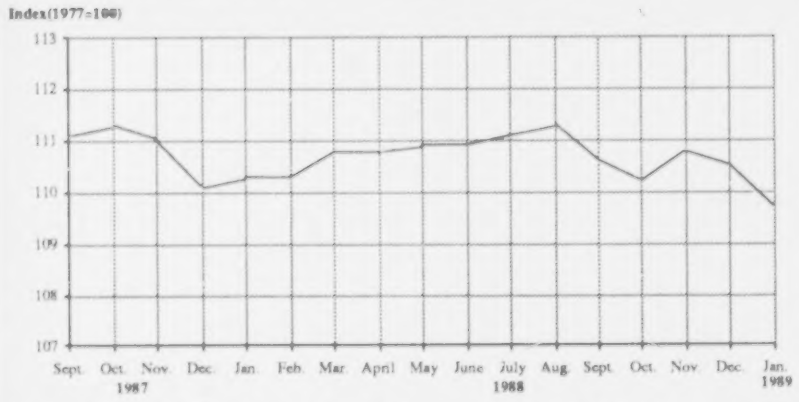
The Arizona Leading Index contains two of the components used in the national index of leading indicators compiled by the Bureau of Economic Analysis, U.S. Department of Commerce: the money supply M2 and the change in sensitive materials prices. While recent changes by the Bureau of Economic Analysis have not altered the money supply figures beyond the normal revisions that occur each month, significant changes were made to the sensitive materials price data.

Price components that were no longer available were dropped and seasonal adjustment was made to those series showing seasonal variation. Since the weighting scheme used previously had little impact, the component series are now equally weighted. The smoothing method was changed from a simple four-month moving average to a technique developed by Statistics Canada. Although these changes to the sensitive materials price are substantial, their impact on the Arizona Index of Leading Economic Indicators has been small.

(For more information about the changes, see "Business Cycle Indicators: Revised Composite Indexes" by Marie P. Hertzberg and Harry A. Beckman, *Business Conditions Digest*, January 1989, published by the U.S. Department of Commerce, Bureau of Economic Analysis).

FIGURE 1

ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source: Economic Outlook Center, College of Business, Arizona State University; sponsored by Citibank (Arizona).

OUTLOOK

The fall in the index this month can be traced primarily to weak residential building permit numbers and a drop in the money supply. The money supply will fall further in the months ahead as the Federal Reserve battles inflation, while building permits will continue to show an erratic up-and-down pattern.

– **Tracy L. Clark,** *Economist*
Economic Outlook Center

TABLE 1

NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

	Net Contribution*			
	Oct.	*Nov.*	*Dec.*	*Jan.*
Delivery Time**	–.03	.01	.01	–.02
Inventory Levels**	.14	–.12	–.09	.12
New Orders**	.06	–.03	–.06	–.03
Production**	.02	–.01	–.08	–.11
Employment**	–.10	.01	–.02	–.02
Residential Building Permits	–.20	.38	–.06	–.43
Unemployment Insurance Claims	.00	.00	.00	.00
Average Workweek, Manufacturing	–.07	.12	.00	.02
Money Supply	–.11	.15	.04	–.30
Change in Sensitive Materials Prices	–.04	.00	.02	.03
OVERALL INDEX CHANGE (%)	–.34	.50	–.24	–.73

*The net contribution of each component is calculated by multiplying the monthly percent change in its index by its relative importance.

**Based on indicators from the Purchasing Management Associations of Arizona and southern Arizona.

Source: Economic Outlook Center, College of Business, Arizona State University; sponsored by Citibank (Arizona).

The Arizona leading index is based on 10 economic indicators, combined and weighted to project the pace of economic activity several months ahead. Five of the components come from a monthly survey of Arizona purchasing managers conducted by Dr. Harold Fearon. The Arizona Index of Leading Economic Indicators is sponsored by Citibank (Arizona).

1988 home sales, appreciation slip; affordability rises

Both home sales and home appreciation in the Metropolitan Phoenix area were lackluster during 1988, but affordability hit record-high levels.

Home sales declined in all of the larger cities, resulting in a 13 percent overall drop in sales during the year (see Table 1). Only Gilbert's sales were higher than in 1987. Paradise Valley, Sun City West and Fountain Hills suffered the largest losses, reversing their positions from 1987, when they were the only cities to sell more homes than in 1986. Phoenix accounted for 39 percent of the total sales in the Valley, followed in order by Mesa, Scottsdale, Chandler, Glendale and Tempe.

The median sales price of all homes sold in the Valley during 1988 rose 1 percent. The median price rose the most in Gilbert (7 percent) and Fountain Hills (4 percent), and fell in Paradise Valley (8 percent) and Sun City (7 percent). Paradise Valley's median price was considerably higher than any other city ($300,000), followed by Carefree/Cave Creek and Scottsdale. Prices were lowest in Sun City and Phoenix.

HOME APPRECIATION

The median rate of appreciation in all cities fell in 1988. The overall metro median dropped from 2.4 percent in 1987 to 1.8 percent in 1988, further increasing the spread between the local appreciation rate and the inflation rate of 4.1 percent. The appreciation decline reflects the weak resale housing market. Only Sun City West's appreciation rate of 7.2 percent was considerably higher than the metro median of 1.8 percent. This city was also the only one to outperform the Valley inflation rate, although its rate was down from 9.0 percent in 1987.

Tempe's appreciation rate was the most consistent, only 0.1 percent lower than in 1987. However, appreciation in Chandler, Scottsdale and Sun City West outperformed Tempe, and Mesa matched Tempe's 2.0 rate. Homes in Peoria also appreciated slightly faster than the Valley's overall 1.8 per- cent. The appreciation rate was below the metro median in Glendale, Phoenix and Sun City.

Areas with higher-priced homes and/or a larger proportion of new homes typically enjoy higher appreciation rates.

HOME AFFORDABILITY

Affordability of new single-family homes was highest in Mesa, the only city where a median-priced new home was affordable to the median-income household.

Resale home affordability was highest in Glendale and Phoenix; median-priced resale homes were also affordable to the median-income household in Tempe and Mesa (see Table 1).

BREAKDOWN BY CITY

Chandler/Gilbert

Relatively high appreciation, stable overall home prices and declining sales characterize the real estate market in Chandler. Home sales fell 19 percent during 1988; the biggest drop occurred in new townhouses and condominiums. Prices accelerated 6 percent on new single-family homes but fell 8 percent on new townhouses; the total median price rose 1 percent.

Gilbert was the only city to sell more homes in 1988 than in 1987; both new and resale single-family sales in Gilbert increased, and prices accelerated slightly over 1987. Once again, the effect of newer, more expensive homes is seen in the Gilbert market, primarily due to sales in planned area developments. Townhouse sales dropped 69 percent and the median price fell about 16 percent.

Both Chandler and Gilbert appeared to appreciate faster than the overall metro

TABLE 1

1988 HOME SALES, APPRECIATION AND AFFORDABILITY
Metropolitan Phoenix, By City

City	Number of Sales	Percent Change from 1987	Median Sales Price	Percent Change from 1987	Median Appreciation Rate	Resale Home Affordability Index[2]	New Home Affordability Index[2]
Carefree/Cave Creek	100	-9	143,520	2	*	NA	NA
Chandler	3,110	-19	88,030	1	2.6%	NA	NA
Fountain Hills	480	-23	99,000	4	*	NA	NA
Gilbert	280	8	99,000	7	*	NA	NA
Glendale	2,380	-18	75,000	-2	1.4	132	99
Mesa	7,790	-19	77,900	0	2.0	119	103
Paradise Valley	90	-76	300,000	-8	*	NA	NA
Peoria	1,750	-20	79,250	0	1.9	NA	NA
Phoenix	19,600	-14	72,600	-1	1.5	133	89
Scottsdale	4,190	-19	116,000	1	2.4	93	71
Sun City	1,330	-17	65,000	-7	0.8	NA	NA
Sun City West	880	-43	98,460	2	7.2	NA	NA
Tempe	2,370	-19	80,000	-1	2.0	122	72
MARICOPA CO. TOTAL[1]	49,770	-13	81,500	1	1.8	121	91

[1] Total does not add to sum of cities due to exclusion of cities with less than 100 sales and of unincorporated areas.

[2] An affordability index of 100 or more indicates that a median-income household could qualify for a median-priced home, assuming a conventional, fixed-rate, 30-year loan and a 15-percent downpayment.

* Insufficient number of sales.

NA = Income estimates not available.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

area, but Chandler's rate of 2.6 percent was still less than the inflation rate.

Glendale/Peoria

Glendale's most striking characteristic is its home affordability. The city's median sales price of both new and resale homes was lower than the Valley median, while its median income was 9 percent higher, resulting in high affordability levels.

Home sales fell 18 percent in Glendale while the median price of all homes sold fell 2 percent. The 1.4 percent rate of appreciation was lower only in Sun City. Low rates would be expected due to the low home prices in this area, as well as the low proportion of new homes.

Peoria is notable for its large percentage of new homes. Even though the proportion fell during 1988, it was second only to Sun City West. Sales in Peoria dropped 20 percent during the year while prices rose only 0.4 percent. Peoria's 1.9 percent rate of appreciation placed it only slightly above the metro median.

Mesa

High levels of new home affordability, stable prices, declining home sales and declining but slightly higher-than-average appreciation summarize real estate activity in Mesa. The total number of sales declined 19 percent, with new homes taking the largest loss. Prices were level overall, but new homes increased 3 percent.

Mesa's 2.0 percent rate of appreciation fell significantly from 3.1 percent during 1987, placing it mid-way among all Valley cities.

The city's new home affordability level was the highest in the Valley; Mesa was the only city in which the median income household could afford a new home. Resale affordability approximated the overall metro level.

Phoenix

High levels of resale home affordability, low appreciation rates and declining home sales highlight the Phoenix market.

The 1.5 percent rate of appreciation was third lowest among the Valley's large cities. Appreciation was lowest in the older and/or less expensive areas of Maryvale, Christown and Metrocenter. The areas of north central Phoenix, east Camelback, downtown and midtown Phoenix all had rates in excess of the Valley median, though no area of Phoenix kept up with the Valley inflation rate.

Affordability of resale single-family homes was much higher in Phoenix and Glendale than in any other large city in the Valley. The median income in Phoenix was slightly less than the overall Valley level, but home prices were significantly lower than in any other city.

Single-family home sales dropped 14 percent and townhomes declined 16 percent. The median price of single-family homes fell 1 percent while townhome prices dropped 4 percent.

Scottsdale, Paradise Valley, Fountain Hills

High home prices and appreciation rates as well as low levels of affordability and declining home sales summarize these expensive areas of the Valley.

Homes in all three of these areas appear to appreciate faster than in the metro area as a whole, primarily due to the large proportion of new and/or expensive homes. Scottsdale's appreciation rate of 2.4 percent in 1988 was higher; Fountain Hills and Paradise Valley appeared to have the second and third highest rates in the Valley, behind Sun City West. However, the small number of sales in Fountain Hills and Paradise Valley reduces confidence in the exact rate of increase.

Even though high-priced homes in exclusive neighborhoods are sometimes less affected by economic slowdowns than those in less expensive areas, the recent real estate slump had a definite impact on these three communities. The number of homes sold in 1988 plummeted 76 percent in Paradise Valley, 23 percent in Fountain Hills and 19 percent in Scottsdale.

The median price increased 4 percent in Fountain Hills and 1 percent in Scottsdale; the median price in Paradise Valley fell 8 percent, the largest decrease in the Valley. Paradise Valley's median home price of $300,000 was still more than two times higher than next-highest Carefree/Cave Creek.

Affordability of homes in Scottsdale is the lowest of all Valley cities for which income estimates can be obtained. The low level results from high home prices that more than offset the residents' higher incomes.

Sun City

Declining home sales, prices and appreciation describe the housing market in Sun City. The number of homes sold fell 17 percent from 1987; townhouse sales fell the most. The median home price dropped 7 percent, second only to Paradise Valley's 8 percent decline.

Exhibiting a significant downward trend, appreciation rates in Sun City have deteriorated from one of the highest in the Valley, 5.7 percent in 1984, to the lowest, 0.8 percent in 1988. The area has primarily lower-priced homes and few new homes, contributing to this low rate of appreciation.

Sun City West

Home sales declined dramatically in this area during 1988, while prices increased only slightly. Appreciation also declined, but remained well ahead of any other city in the Valley.

The 7.2 percent rate of appreciation in Sun City West was by far the highest in the Valley, considerably higher than the 1.8 percent overall median. The city had the highest proportion of homes appreciating 8 percent or more annually, and the smallest percentage of homes which lost value from one purchase to the next. Sun City West's claim to the highest proportion of new homes in the Valley, combined with the distinctive character of the area, explains most of the high appreciation rate.

Although home sales declined 43 percent from 1987 — the largest decline in the Valley — the major effect of the drop was to return the area to its approximate level prior to the 35 percent increase between 1986 and 1987.

Tempe

The number of homes sold dropped 19 percent in Tempe; single-family home sales declined more than townhome sales. Prices fell 1 percent, led mostly by townhouses. Appreciation declined less in Tempe than in any other city, improving the city's standing to slightly above the metro median.

Affordability of resale single-family homes in Tempe was approximately equal to the metro median, while new homes were less affordable. Tempe's median income, second only to Scottsdale's, was offset by high new-home prices, reducing affordability.

– **Sharla Kivett,** *Research Analyst*
Arizona Real Estate Center

Complete Reports Available

This article summarizes more detailed reports on the appreciation and affordability of homes in the Phoenix area during the 1980s. Copies of the complete reports, which include a number of tables with textual interpretation, as well as analysis by city and district, may be obtained for $5.00 each from the Arizona Real Estate Center, College of Business, Arizona State University, Tempe, AZ 85287; (602) 965-5440.

1988 construction slows for third consecutive year

From its record high in 1985 (108,897 permits worth $5.4 billion), the Arizona construction industry posted its third year of decreasing activity. Total construction activity for 1988 declined 10 percent from 1987 ($5.1 to $4.6 billion), and permit activity fell 15 percent (92,242 to 78, 522 permits). In the absence of a rapidly expanding economy, the primary driving forces were improved activity in certain non-metropolitan areas and large private and public projects in Maricopa County, confirmed by an increased average permit value of $58,500, up from $50,000 in 1985.

Maricopa County continued to dominate with $3.4 billion in new projects, 74 percent of the state's total dollar value. Total construction activity declined 11 percent from $3.8 billion (55,933 permits) in 1987 to $3.4 billion (44,574 permits) in 1988, and the average permit value increased from $61,340 in 1985 to $75,600.

Compared to 1987, Pima County's total construction activity declined 22 percent, from $596 million (13,921 permits) to $464 million (11,712 permits). Over the last few years, Pima County's share has steadily dropped from 15 percent in 1985 to only 10 percent for 1988.

In contrast, construction activity in the non-metropolitan areas increased from $662 million in 1987 (13 percent market share) to $720 million (16 percent market share). Growth was especially strong in Mohave County ($127 to $156 million) and Pinal County ($64 to $93 million).

The twelve leading areas of development activity for 1988, shown in Table 1, accounted for $3.8 billion or 83 percent of all activity recorded in Arizona. However, only Peoria ($146 to $202 million), Gilbert ($132 to $155 million), and unincorporated Yavapai County ($73 to $82 million) showed improvement over 1987.

TABLE 1

REPORTING UNITS WITH GREATEST TOTAL VALUE OF BUILDING PERMITS 1988

Reporting Unit	Value *(in millions)*
Phoenix	$1,320
Scottsdale	633
Mesa	313
Unincorporated Pima County	230
Unincorporated Maricopa County	221
Peoria	202
Tucson	195
Chandler	173
Tempe	173
Gilbert	155
Glendale	134
Unincorporated Yavapai County	82

Source: Center for Business Research, College of Business, Arizona State University.

SECTORAL ACTIVITY

Residential

Maricopa County. Although new home affordability remained stable throughout the year, single-family construction decreased 18 percent, from 18,012 permitted homes in 1987 to 14,734 new homes for 1988. The only areas to report improved new home construction activity over last year were Avondale (201 to 242 permits), Chandler (1,099 to 1,101 permits), and Gilbert (1,069 to 1,178 permits). While the number of permitted homes and recorded value has declined appreciably over the last few years, the average single-family permit value has steadily increased from $92,600 in 1987 to $98,600, demonstrating that the new home market continues to be dominated by the move-up market.

Rest of Arizona. The single-family sector in Pima County decreased 26 percent in 1988 (4,130 to 3,061 permits), while the average permit value improved from $66,700 to $69,600. Nearly 70 percent of permitted homes were in unincorporated Pima County. Oro Valley reported a strong increase in permitted activity, from 197 homes in 1987 to 363 homes for 1988.

Although new home construction declined in Arizona's non-metropolitan areas (5,218 to 4,996 permits), the decrease was not as severe as in the metropolitan areas. Further, total dollar value rose from $327 to $335 million, and the average permit value increased from $62,700 to $67,000. Areas reporting improvement included Lake Havasu City (565 to 763 permits), Bullhead City (203 to 251 permits), Prescott (286 to 313 permits), and unincorporated Yuma County (174 to 183 permits).

Commercial

Maricopa County. The multifamily and office building sectors declined appreciably in 1988, but the retail sector expanded from $249 million (735 permits) to $316 million (753 permits). Two cities recorded much stronger retail development in 1988: Phoenix ($91 to $154 million) and Tempe ($11 to $40 million).

With 6,030 permitted units, the multifamily sector has continued its rapid descent from its 1984 record year of 34,284 units. Three cities reported more activity than last year: Chandler (383 to 440 units), Gilbert (30 to 628 units), and Peoria (12 to 455 units). The annual average metropolitan vacancy rate has increased from 13 percent in 1987 to 15 percent.

After a record year in 1987 ($407 million), the office building sector decreased 42 percent in 1988 to $238 million. The primary areas of development were Phoenix ($161 million) and Scottsdale ($55 million). Development in the hotel/motel sector, declining in response to limited market demand, saw only 900 rooms permitted in 1988, valued at $31 million, compared to 2,900 rooms worth $88 million permitted in 1987. The city of Phoenix dominated this sector with 600 permitted rooms worth at $21 million.

Rest of Arizona. Multifamily activity in Pima County increased in 1988 from 1,556 to 1,882 authorized units. Oro Valley, which did not issue any multifamily permits for 1987, authorized 240 units for 1988. Both the office building and retail sectors declined over 50 percent from last year (see Table 2). No new hotel/motel developments were recorded during the year.

When development activity declines in the metropolitan areas, it frequently improves in the non-metropolitan areas. This improvement was especially evident in the retail sector, which grew from $36 million in 1987 to $60 million. The leading areas were Casa Grande (12 permits, $14 million), Cottonwood (6 permits, $6 million), and Yuma (17 permits, $6 million). While multifamily activity fell from 1,103 to 648 permitted units in the non-metropolitan area, several smaller cities recorded improvement over last year: Lake Havasu City (46 to 126 units), Bullhead City (0 to 88 units), Apache Junction (48 to 112 units), and Prescott (112 to 191 units). Bullhead City was the site of the largest permitted hotel/motel project with 150 rooms, worth $5 million. Development activity in the office building sector increased from $11 to $16 million, led by Flagstaff (7 permits, $4 million) and Prescott (12 permits, $2 million).

Industrial

Maricopa County. Industrial development continued to slide in 1988, with only $56 million in new projects compared to $127 million during 1987. Only the city of Tempe reported increased industrial activity, moving from $13.2 to $13.5 million. Other cities reported strong declines, including Chandler ($26 to $9 million), Mesa ($14 to $1 million), and Goodyear ($8 million to no activity).

Rest of Arizona. Industrial development in Pima County improved from $5 to $8

million; much of it in Tucson ($1 to $3 million). In the non-metropolitan counties, industrial activity increased from $10 to $23 million, and was most evident in Casa Grande (5 permits, $4 million), unincorporated Yavapai County (4 permits, $8 million), and Yuma (4 permits, $3 million).

Other

This category, which covers a wide range of permitted activity, from churches to schools to swimming pools, was the only one to increase over last year ($952 million to $1 billion), led by continued growth in educational facilities ($168 to $175 million) and a $100 million permit for a new Sky Harbor terminal in Phoenix.

New educational projects were permitted in Flagstaff (2 permits, $25 million), Show Low (1 permit, $4 million), and Peoria (4 permits, $15 million). New health care facility projects rose from $70 to $79 million, led by Peoria (6 permits, $42 million) and Scottsdale (1 permit, $12 million).

LOOKING AHEAD

Last year began clouded by concern about the effects of the stock market "crash," Arizona's slowing economy, lower population growth, and heightening inflation. Growth continued in spite of these dire expectations, but it was insufficient to stimulate construction to higher levels of activity. Given the strong development activity in recent years and the resulting overbuilt conditions in many sectors of the market, the economy must expand at a much greater rate if it is to stimulate new activity and allow for the absorption of existing space.

The major concern for 1989 is inflation and the corresponding rise in interest rates. As the Federal Reserve Board forces interest rates to increase, the national economy could enter a recession, adversely affecting the Arizona economy. Since real estate development is based on confidence in the future, any factor that dampens expectations can reduce development activity. Hence, 1989 will likely be a year-in-waiting as developers observe the changes in the economy and the market.

Other factors will also affect the construction industry. First, the strong migration pattern that fueled the record activity of the mid-80s has continued to diminish during the past year. Although Arizona is still growing, the pace is not sufficient to both support new development and fill existing space. Second, the activity in 1988 was largely supported by the construction of major private and public projects. Although several major projects have been announced for 1989, there is no certainty that they will be started. Further, they may not be sufficient to support construction activity at the 1988 levels.

No single sector appears to have the basic conditions needed to become a growing area during 1989. Development is most likely to increase in the non-metropolitan areas, especially Mohave and Yavapai counties. These areas have growing economies, based on tourism and retirees, and offer development opportunities, especially in housing.

Development activity is very closely related to the current and expected strength and direction of the economy. While the market is not expected to expand during 1989, neither is there any reason for construction activity to decline appreciably. No single sector should dominate in 1989, but combined, they should produce a solid although not spectacular year of construction activity. If the economy and population continue to grow at current levels and there is no recession, development activity should show signs of improvement during the last part of 1989, with stronger growth during 1990. However, if the economy declines further than currently expected, the market will follow suit, and the recovery will be postponed.

If short-term expectations lack confidence, the long-term outlook suggests great potential. As Arizona's economy continues to generate new jobs and income and attract new population, the state construction market will again be one of the most dynamic in the country in the 1990s.

– Jay Q. Butler

Dr. Butler is Associate Professor of Real Estate and Director of the Arizona Real Estate Center in the ASU College of Business.

TABLE 2

KEY SECTOR CONSTRUCTION ACTIVITY
1987 and 1988

			COMMERCIAL							
	SINGLE FAMILY		APARTMENTS[a]		OFFICE BUILDINGS[b]		RETAIL STORES[c]		INDUSTRIAL	
Maricopa County	*Number of Permits*	*Dollar Value (000)*	*Number of Units*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*
1988	14,734	1,453,391	6,030	288,323	228	238,453	753	316,045	140	56,269
1987	18,012	1,667,829	8,879	389,198	336	407,206	735	248,869	205	127,345
Pima County										
1988	3,061	213,142	1,882	57,536	82	15,886	89	19,686	34	7,968
1987	4,130	275,487	1,556	38,119	56	30,767	92	45,007	29	4,769
Rest of Arizona										
1988	4,996	335,069	648	18,548	109	16,485	260	60,387	66	22,956
1987	5,218	327,251	1,103	28,726	98	11,140	230	36,271	67	10,399
Arizona Total										
1988	22,791	2,001,602	8,560	364,407	419	270,824	1,102	396,118	240	87,193
1987	27,360	2,270,567	11,538	456,043	490	449,113	1,057	330,147	301	142,513

[a] Five or more housing units
[b] Office, bank, medical and professional buildings
[c] Shopping centers and other mercantile buildings

Source: Center for Business Research, College of Business, Arizona State University.

TABLE 3

ARIZONA BUILDING PERMITS: ANNUAL REPORT
January – December 1988

	Residential*		Commercial		Industrial		Other		Total	
APACHE COUNTY	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*
Eagar**	62	1,436	3	47	0	0	6	2,665	71	4,148
St. Johns**	1	N/C	1	N/C	0	0	0	0	2	N/C
Springerville**	7	146	3	163	0	0	0	0	10	309
Unincorporated	132	3,349	5	258	0	0	20	3,875	157	7,482
Total, Apache County	202	4,931	12	468	0	0	26	6,540	240	11,939
Percent Change, Previous Year	-11	-27	-20	-44	—	—	44	1,727	-8	48
COCHISE COUNTY										
Benson**	18	33	1	31	0	0	4	10	23	74
Bisbee	57	291	7	113	0	0	20	142	84	546
Douglas**	41	668	10	153	0	0	20	24	71	865
Huachuca City**	3	7	0	0	0	0	0	0	3	7
Sierra Vista	318	3,707	7	1,481	0	0	513	1,259	838	6,447
Tombstone**	5	166	0	0	0	0	9	7	14	173
Unincorporated**	222	9,994	13	4,177	0	0	17	111	252	14,282
Willcox**	48	89	9	784	0	0	34	352	91	1,225
Total, Cochise County	712	14,955	47	6,739	0	0	617	1,905	1,376	23,599
Percent Change, Previous Year	-50	-53	-44	-31	—	—	-25	-42	-41	-42
COCONINO COUNTY										
Flagstaff**	495	23,224	69	12,325	4	860	254	36,759	822	73,148
Fredonia**	1	25	1	2	0	0	0	0	2	27
Page**	69	1,898	8	429	1	33	42	4,590	120	6,950
Unincorporated	993	34,672	60	2,027	1	57	239	1,924	1,293	38,680
Williams	30	721	8	185	1	18	27	357	66	1,281
Total, Coconino County	1,588	60,540	146	14,968	7	948	562	43,630	2,303	120,086
Percent Change, Previous Year	-7	0	-30	-41	-13	-42	-4	205	-9	18
GILA COUNTY										
Globe	27	436	10	1,545	0	0	35	142	72	2,123
Hayden	4	6	1	5	0	0	5	4	10	15
Miami**	6	42	0	0	0	0	3	6	9	48
Payson	394	10,005	23	1,255	2	157	53	713	472	12,130
Unincorporated	445	10,857	19	488	0	0	51	2,775	515	14,120
Total, Gila County	876	21,346	53	3,293	2	157	147	3,640	1,078	28,436
Percent Change, Previous Year	-1	-1	-30	-24	-33	94	-21	-22	-6	-7
GRAHAM COUNTY										
Pima**	35	315	2	81	0	0	15	21	52	417
Safford	129	1,739	16	257	0	0	30	404	175	2,400
Thatcher	57	1,220	3	221	0	0	17	1,543	77	2,984
Unincorporated	248	4,304	2	28	0	0	17	164	267	4,496
Total, Graham County	469	7,578	23	587	0	0	79	2,132	571	10,297
Percent Change, Previous Year	2	9	-48	-90	—	—	1	168	-2	-26
GREENLEE COUNTY										
Clifton**	0	0	0	0	0	0	0	0	0	0
Duncan**	1	70	0	0	0	0	0	0	1	70
Unincorporated	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Total, Greenlee County	1	70	0	0	0	0	0	0	1	70
Percent Change, Previous Year	0	—	—	—	—	—	—	—	0	—
LA PAZ COUNTY										
Parker**	31	158	3	31	0	0	13	59	47	248
Unincorporated**	384	4,873	25	3,531	0	0	165	1,089	574	9,493
Total, La Paz County	415	5,031	28	3,562	0	0	178	1,148	621	9,741
Percent Change, Previous Year	18	60	-7	51	—	—	75	268	27	50
MARICOPA COUNTY										
Avondale	328	15,048	6	323	1	12	229	9,435	564	24,818
Buckeye	24	108	5	1,053	0	0	6	389	35	1,550
Cave Creek**	9	N/C	1	N/C	0	0	5	N/C	15	N/C
Chandler	1,515	97,062	96	37,867	30	8,875	2,292	29,560	3,933	173,364
El Mirage**	26	473	2	421	0	0	28	3,084	56	3,978
Gila Bend	14	83	5	177	0	0	19	942	38	1,202
Gilbert	1,326	98,912	52	33,703	1	350	797	22,143	2,176	155,108
Glendale	1,390	77,337	191	39,324	3	1,092	744	15,811	2,328	133,584
Goodyear**	91	4,609	17	2,153	2	62	24	2,902	134	9,726
Guadalupe**	0	0	0	0	0	0	0	0	0	0
Mesa	2,333	164,877	93	49,089	5	830	2,859	98,052	5,290	312,848
Paradise Valley**	259	28,611	3	5,529	0	0	246	4,240	508	38,380
Peoria	1,642	97,308	73	40,596	0	0	508	63,991	2,223	201,895
Phoenix	7,387	456,366	597	458,902	70	30,114	7,145	375,040	15,199	1,320,422
Scottsdale	1,465	289,990	266	235,481	0	0	1,546	107,083	3,277	632,554
Surprise	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Tempe	809	52,025	439	63,667	25	13,582	777	43,796	2,050	173,070
Tolleson**	20	264	2	39	0	0	14	1,113	36	1,416
Unincorporated	4,316	150,559	380	43,864	2	632	1,876	25,762	6,574	220,817
Wickenburg	26	692	7	1,531	1	720	5	475	39	3,418
Youngtown**	24	119	0	0	0	0	75	5,416	99	5,535
Total, Maricopa County	23,004	1,534,463	2,235	1,013,719	140	56,269	19,195	809,234	44,574	3,413,685
Percent Change, Previous Year	-19	-13	-17	-21	-32	-56	-22	18	-20	-11

ARIZONA BUILDING PERMITS: ANNUAL REPORT (continued)

	Residential*		Commercial		Industrial		Other		Total	
MOHAVE COUNTY	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*	*Number of Permits*	*Dollar Value (000)*
Kingman City	191	7,216	38	5,298	1	3	73	1,783	303	14,300
Kingman Area	448	6,851	12	850	1	72	288	787	749	8,560
Lake Havasu City	1,011	54,395	34	8,641	2	52	224	3,226	1,271	66,314
Lake Havasu Area	75	1,049	1	117	0	0	45	190	121	1,356
Bullhead City	804	22,995	30	9,739	0	0	49	1,318	883	34,052
Mohave Valley South	727	15,079	19	1,364	0	0	396	2,194	1,142	18,637
Dolan Springs	149	2,345	2	92	0	0	94	312	245	2,749
Sacramento Valley	370	5,755	17	565	0	0	176	800	563	7,130
Mohave General	291	2,095	8	598	0	0	50	297	349	2,990
Total, Mohave County	4,066	117,790	161	27,266	4	127	1,395	10,907	5,626	156,088
Percent Change, Previous Year	9	26	11	60	-75	-97	5	-14	8	23
NAVAJO COUNTY										
Holbrook	51	736	6	36	0	0	8	9	65	781
Pinetop-Lakeside**	86	3,012	4	184	0	0	20	72	110	3,268
Show Low**	89	1,857	17	2,842	1	139	124	3,652	231	8,490
Snowflake**	31	700	2	66	0	0	11	8	44	774
Taylor**	5	N/C	0	0	1	N/C	1	N/C	7	N/C
Unincorporated	725	17,409	16	1,582	1	378	12	232	754	19,601
Winslow**	50	552	8	2,073	1	320	17	318	76	3,263
Total, Navajo County	1,037	24,266	53	6,783	4	837	193	4,291	1,287	36,177
Percent Change, Previous Year	29	-2	36	117	300	4,550	66	427	34	26
PIMA COUNTY										
Marana	65	588	6	710	1	86	27	126	99	1,510
Oro Valley	381	25,647	22	9,056	1	400	184	2,198	588	37,301
South Tucson	38	221	6	89	2	129	12	40	58	479
Tucson	2,202	50,768	182	80,625	20	2,811	2,859	60,731	5,263	194,935
Unincorporated	3,511	157,648	115	25,782	10	4,542	2,068	42,029	5,704	230,001
Total, Pima County	6,197	234,872	331	116,262	34	7,968	5,150	105,124	11,712	464,226
Percent Change, Previous Year	-13	21	-6	-12	17	67	-20	-36	-16	-22
PINAL COUNTY										
Apache Junction	443	10,826	53	5,245	0	0	466	2,946	962	19,017
Casa Grande	383	9,199	144	19,212	5	4,264	187	2,723	719	35,398
Coolidge**	46	511	2	6	0	0	11	196	59	713
Eloy	112	678	10	2,626	4	185	38	626	166	4,115
Florence**	117	933	1	12	0	0	23	587	141	1,532
Kearny**	16	33	1	5	0	0	4	21	21	59
Mammoth	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Superior	7	17	1	125	0	0	18	38	26	180
Unincorporated**	408	18,661	34	7,544	16	2,190	68	3,347	526	31,742
Total, Pinal County	1,532	40,858	246	34,775	25	6,639	815	10,484	2,618	92,756
Percent Change, Previous Year	27	23	58	92	257	432	22	13	29	44
SANTA CRUZ COUNTY										
Nogales	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Patagonia	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Unincorporated	418	10,547	17	1,056	2	455	24	762	461	12,820
Total, Santa Cruz County	418	10,547	17	1,056	2	455	24	762	461	12,820
Percent Change, Previous Year	-36	-23	6	5	0	107	-41	63	-36	-17
YAVAPAI COUNTY										
Chino Valley**	121	1,854	5	51	0	0	43	923	169	2,828
Clarkdale**	59	2,575	4	83	0	0	9	440	72	3,098
Cottonwood**	113	2,034	16	7,002	7	517	78	5,162	214	12,715
Jerome**	15	14	10	320	1	N/C	0	0	26	334
Prescott	621	26,279	38	10,959	1	59	398	2,493	1,058	39,790
Prescott Valley**	617	11,449	29	2,052	0	0	2	1,706	648	15,205
Unincorporated	1,330	58,913	44	6,229	4	7,526	297	9,812	1,675	82,480
Total, Yavapai County	2,876	103,118	146	26,696	13	8,107	827	18,536	3,862	156,450
Percent Change, Previous Year	-1	2	-6	30	44	855	-17	-39	-5	-3
YUMA COUNTY										
Somerton	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Unincorporated	912	22,882	58	3,520	5	2,218	605	3,126	1,580	31,746
Wellton	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Yuma**	296	10,740	30	6,946	4	3,473	282	7,144	612	30,303
Total, Yuma County	1,208	33,622	88	12,466	9	5,691	887	10,270	2,192	62,049
Percent Change, Previous Year	1	1	-18	-21	-18	461	15	-54	5	-14
TOTAL, ARIZONA	64,901	2,213,987	3,586	1,268,638	240	87,193	30,095	1,028,601	78,522	4,598,419
Percent Change, Previous Year	-13	-11	-13	-17	-20	-39	-18	8	-15	-10

*Includes mobile homes.

**Incomplete data: One or more months not available.

N/R: No report.

N/C: This community does not collect dollar valuations.

Note: A dash indicates that a percent change could not be calculated because at least one period had no activity.

Source: Center for Business Research, College of Business, Arizona State University.

TABLE 4

ARIZONA HOUSING UNITS AUTHORIZED: ANNUAL REPORT
January - December 1988

	One Family	Mobile Homes	Duplex	3-4 Family	5 or More	Total
APACHE COUNTY						
Eagar**	14	19	0	0	0	33
St. Johns**	0	1	0	0	0	1
Springerville**	2	2	0	0	0	4
Unincorporated	60	26	0	0	0	86
Total, Apache County	76	48	0	0	0	124
Percent Change, Previous Year	-5	-48	—	—	—	-28
COCHISE COUNTY						
Benson**	0	10	0	0	0	10
Bisbee	1	1	0	0	0	2
Douglas**	10	0	0	0	0	10
Huachuca City**	0	0	0	0	0	0
Sierra Vista	60	36	0	0	0	96
Tombstone**	2	0	0	0	0	2
Unincorporated**	184	0	0	0	0	184
Willcox**	1	18	0	0	0	19
Total, Cochise County	258	65	0	0	0	323
Percent Change, Previous Year	-47	75	—	—	—	-57
COCONINO COUNTY						
Flagstaff**	262	92	28	27	72	481
Fredonia**	1	0	0	0	0	1
Page**	10	25	2	0	0	37
Unincorporated	302	198	2	0	0	502
Williams	7	7	0	0	0	14
Total, Coconino County	582	322	32	27	72	1,035
Percent Change, Previous Year	-9	-6	23	575	-87	-34
GILA COUNTY						
Globe	5	0	0	0	40	45
Hayden	0	0	0	0	0	0
Miami**	0	1	0	0	0	1
Payson	92	85	0	0	0	177
Unincorporated	126	130	0	0	0	256
Total, Gila County	223	216	0	0	40	479
Percent Change, Previous Year	-15	2	—	—	567	0
GRAHAM COUNTY						
Pima**	2	11	0	4	0	17
Safford	17	27	0	4	0	48
Thatcher	12	18	0	0	0	30
Unincorporated	31	156	0	0	0	187
Total, Graham County	62	212	0	8	0	282
Percent Change, Previous Year	17	11	—	167	—	1
GREENLEE COUNTY						
Clifton**	0	0	0	0	0	0
Duncan**	1	0	0	0	0	1
Unincorporated	N/R	N/R	N/R	N/R	N/R	N/R
Total, Greenlee County	1	0	0	0	0	1
Percent Change, Previous Year	—	—	—	—	—	—
LA PAZ COUNTY						
Parker**	1	0	0	0	0	1
Unincorporated**	18	232	0	4	0	254
Total, La Paz County	19	232	0	4	0	255
Percent Change, Previous Year	36	78	—	—	—	77
MARICOPA COUNTY						
Avondale	242	59	0	0	5	306
Buckeye	1	15	0	0	0	16
Cave Creek**	7	0	0	0	0	7
Chandler	1,101	0	0	0	440	1,541
El Mirage**	3	7	0	0	0	10
Gila Bend	2	3	0	0	0	5
Gilbert	1,178	86	0	0	628	1,892
Glendale	759	132	4	12	380	1,287
Goodyear**	59	8	0	0	0	67
Guadalupe**	0	0	0	0	0	0
Mesa	1,778	0	0	8	241	2,027
Paradise Valley**	77	0	0	0	0	77
Peoria	1,291	0	4	0	455	1,750
Phoenix	4,524	9	50	27	2,314	6,904
Scottsdale	1,127	0	44	4	1,327	2,502
Surprise	N/R	N/R	N/R	N/R	N/R	N/R
Tempe	413	0	0	4	101	518
Tolleson**	2	0	0	0	0	2
Unincorporated	2,155	301	0	75	55	2,586
Wickenburg	14	0	0	0	84	98
Youngtown**	1	0	0	0	0	1
Total, Maricopa County	14,734	620	82	130	6,030	21,596
Percent Change, Previous Year	-18	-60	3	-43	-32	-25

	One Family	Mobile Homes	Duplex	3-4 Family	5 or More	Total
MOHAVE COUNTY						
Kingman City	137	0	0	0	0	137
Kingman Area	35	257	0	0	0	292
Lake Havasu City	763	0	20	8	126	917
Lake Havasu Area	6	36	0	0	0	42
Bullhead City	251	0	12	10	88	361
Mohave Valley South	149	323	0	0	0	472
Dolan Springs	20	66	0	0	0	86
Sacramento Valley	55	186	0	0	0	241
Mohave General	23	251	0	0	0	274
Total, Mohave County	1,439	1,119	32	18	214	2,822
Percent Change, Previous Year	22	-9	129	64	2	7
NAVAJO COUNTY						
Holbrook	3	34	0	0	0	37
Pinetop-Lakeside**	28	6	0	0	0	34
Show Low**	12	33	0	0	0	45
Snowflake**	4	23	0	0	0	27
Taylor**	2	0	0	0	0	2
Unincorporated	226	13	0	0	0	239
Winslow**	8	19	0	0	0	27
Total, Navajo County	283	128	0	0	0	411
Percent Change, Previous Year	-15	-14	—	—	—	-17
PIMA COUNTY						
Marana	11	47	0	0	0	58
Oro Valley	363	0	0	0	240	603
South Tucson	5	0	0	0	0	5
Tucson	574	0	34	24	1,089	1,721
Unincorporated	2,108	25	0	0	553	2,686
Total, Pima County	3,061	72	34	24	1,882	5,073
Percent Change, Previous Year	-26	-78	-56	-50	21	-17
PINAL COUNTY						
Apache Junction	31	322	0	0	112	465
Casa Grande	114	0	0	6	0	120
Coolidge**	1	17	0	0	0	18
Eloy	8	28	0	0	0	36
Florence**	0	37	0	0	0	37
Kearny**	0	0	0	0	0	0
Mammoth	N/R	N/R	N/R	N/R	N/R	N/R
Superior	0	0	0	0	0	0
Unincorporated**	261	0	0	0	0	261
Total, Pinal County	415	404	0	6	112	937
Percent Change, Previous Year	22	-11	—	-78	70	6
SANTA CRUZ COUNTY						
Nogales	N/R	N/R	N/R	N/R	N/R	N/R
Patagonia	N/R	N/R	N/R	N/R	N/R	N/R
Unincorporated	172	214	2	13	6	407
Total, Santa Cruz County	172	214	2	13	6	407
Percent Change, Previous Year	-27	-44	-50	-13	0	-37
YAVAPAI COUNTY						
Chino Valley**	10	61	0	0	0	71
Clarkdale**	22	20	6	6	0	54
Cottonwood**	23	13	2	0	0	38
Jerome**	9	0	0	3	0	12
Prescott	313	46	12	28	191	590
Prescott Valley**	166	95	8	10	0	279
Unincorporated	602	281	12	16	0	911
Total, Yavapai County	1,145	516	40	63	191	1,955
Percent Change, Previous Year	-9	-19	25	-55	5	-13
YUMA COUNTY						
Somerton	N/R	N/R	N/R	N/R	N/R	N/R
Unincorporated	183	476	0	0	0	659
Wellton	N/R	N/R	N/R	N/R	N/R	N/R
Yuma**	138	37	0	0	13	188
Total, Yuma County	321	513	0	0	13	847
Percent Change, Previous Year	-2	15	—	—	-73	2
TOTAL, ARIZONA	22,791	4,681	232	293	8,566	36,547
Percent Change, Previous Year	-17	-27	-6	-41	-26	-21

**Incomplete data: One or more months not available.

N/R: No Report.

Note: A dash indicates that a percent change could not be calculated because at least one period had no activity.

Source: Center for Business Research, College of Business, Arizona State University.

Arizona Real Estate Center: Outlook '89 Survey

Metro Phoenix activity expected to decline in 1989, improve in 1990

For the first time since the Arizona Real Estate Center began its annual Outlook survey in 1982, most of the respondents said that they expect the Phoenix metropolitan real estate market to decline during the coming year.

The Outlook 1989 survey, sponsored by *Metro Phoenix* magazine, was conducted in December 1988 and January 1989 to provide additional insight into the evolving market. Over 200 responses were obtained from persons in four main areas of the real estate industry: homebuilding, financial services (banks, savings and loan associations, and mortgage companies), real estate brokerages (commercial and residential), and "others," including appraisal, title insurance, developers, property managers, and government.

While the majority of respondents expect economic conditions in 1989 to be similar to those experienced during 1988 (see Table 1), worsening economic conditions are foreseen by a larger number of respondents than in 1988, and they are less confident about the local economy than they are about the national economy.

The consensus outlook is for stability in the various economic indicators listed in Table 2; the 1989 responses differ little from those in 1988. The greatest variance in responses occurred in the expected level for the prime interest rate, which ranged from 7 to 15 percent.

The level of confidence in certain key areas of the real estate industry tended to be lower than in 1988. Improvement in the local economy is expected by only 39 percent of respondents, 30 percent expect the new home market to grow, 54 percent expect an increase in their firm's activity, and 35 percent expect the real estate market to improve. Confidence that the economic policy of the federal government will lead to an improving economy was expressed by 40 percent of the respondents to the 1989 survey, up from 34 percent in 1988. Only 24 percent expect inflation to be lower in 1989.

Since the residential market is greatly affected by changes in the level of mortgage interest rates, it is important to note that only 35 percent expect these rates to decrease in 1989. Table 2 shows that the respondents expect conventional rates to rise to 10.75 percent in 1989; the average rate in 1988 was 10.31 percent. A drop in the new home market in 1989 was also predicted by those surveyed; the most common response (39 percent) was for permitted activity to be in the range of 10,000 to 14,999 homes in 1989, below the 15,000 to 19,999 permit level projected by the 1988 survey.

The strongest evidence of the lowered expectations for the local real estate market in 1989 is the anticipation by survey respondents that market activity, as presented in Table 2, will remain unchanged. The only exception to this pattern is the almost unanimous opinion that land prices will decline.

While most respondents expect the Phoenix metropolitan real estate market to decline during the year, a similar number anticipate the 1990 real estate market to be better than 1989. This optimism is evidence that, in spite of the limited expectations for the coming year, the Phoenix real estate market still retains the dynamic quality that can be expected to propel it to higher levels in the coming years.

– Jay Q. Butler

Dr. Butler is Associate Professor of Real Estate and Director of the Arizona Real Estate Center in the ASU College of Business.

TABLE 1

ECONOMIC OUTLOOK SCORES*

Economic Variable	1988	1989
Consumer confidence	48	37
Phoenix area economy	50	39
Retail sales	43	39
National economy	35	43
Phoenix employment	44	39
National employment	33	43
Business confidence	46	42

* Metropolitan Phoenix real estate industry representatives had three reply options to each survey question: Higher, Same or Lower. The score for each question was calculated by averaging the weighted replies. The weights: Higher - 100; Same - 50; Lower - 0. Scores may range from 0 to 100, with higher scores reflecting a greater degree of optimism. Scores near 50 indicate an expectation of no change; scores above 50 indicate expected improvement, and scores below 50 indicate expected worsening.

Source: Survey conducted by the Arizona Real Estate Center in the College of Business, Arizona State University.

TABLE 2

1988 AND 1989 CONSENSUS OUTLOOKS COMPARED TO ACTUAL 1988
Metropolitan Phoenix

	1988 Projection	Actual Year-end 1988	1989 Projection
	Percentage Rate		
Variable			
Conventional mortgage rate	10.4	10.6	10.75
VA mortgage rate	10.0	10.5	10.5
Prime interest rate	8.25	10.5	10.0
Commercial interest rate	11.0	N/A	11.0
Six-month Treasury Bill rate	7.0	8.1	8.0
Inflation rate (Metropolitan Phoenix)	4.0	4.1	4.0
Apartment vacancy rate	14.0	14.0	15.0
Unemployment rate (Metro Phoenix)	6.0	5.1	6.0
	Percent Change		
	1988 Projection	Actual 1988	1989 Projection
Resale-home prices	2.0	0.5	0.0
New-home prices	2.0	4.3	0.0
Land prices	0.0	N/A	-2.5
Level of firm's activity	0.0	N/A	0.0
Resale-home market activity	0.0	-10.0	0.0
Monthly rent for apartments	0.0	0.3	0.0

N/A = Not Available

Source: Center for Business Research and Arizona Real Estate Center, College of Business, Arizona State University

Coincident indexes measure further gains in December

Moderate to relatively large economic advances were registered across Arizona in December, continuing the recovery from the state's declines during spring and summer 1988. Such strong gains, however, which occurred for the third month in a row, overstate the underlying health of the economy in the same way that the declines earlier in the year exaggerated its weaknesses. A preliminary look at January's unemployment and employment data suggests a more modest growth rate.

The coincident economic index for the Phoenix area reached a new high of 150.4 (1982=100) in December after rising 0.9 percent. Gains in October and November were 0.6 percent and 1.4 percent respectively, following revisions (see page 15).

In the Tucson area, December's growth moderated a bit to 0.6 percent, following gains of 0.8 percent in October and 1.8 percent in November. December's index reached a record high of 140.9.

The growth rate in rural Arizona in December — 0.4 percent — was much less than the 1.2 percent and 2.2 percent figures of October and November, although the index reached a peak of 132.8. In contrast to growth rates in the urban areas, rural Arizona's growth rate in January probably was higher than in December.

During the six months from April through September, each index component in each geographic area declined. In the last three months of the year, however, each component in each area gained. The only exception was employment in Maricopa County, which dropped, accounting for the Phoenix area's smaller overall gains in October and November. Thus, while big changes in the unemployment rate (see Figure I) accounted for most of the swing from declines to strong advances in the indexes, all components contributed (see Figures II, III, and IV).

In December, the sharp decline in the unemployment rate was the primary reason for the index advance in each geographic area. Maricopa County's gain was the largest because of an increase in the commercial building permit component, which dropped elsewhere. Though employment rose in non-urban Arizona and was nearly unchanged in the metro areas, retail sales declined in rural Arizona but climbed in the urban areas. The composite index for the state rose 0.8 percent to 145.7.

FIGURE I

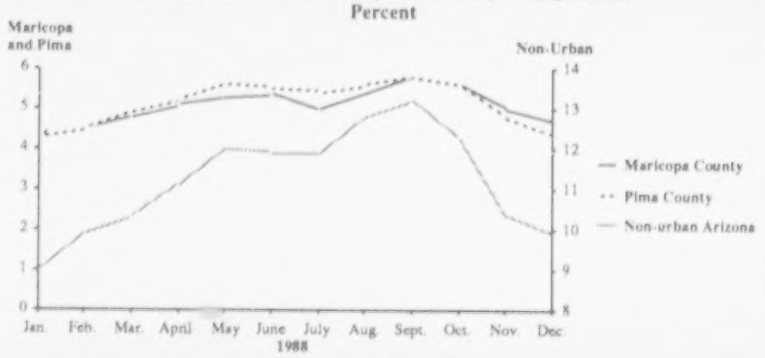


FIGURE II

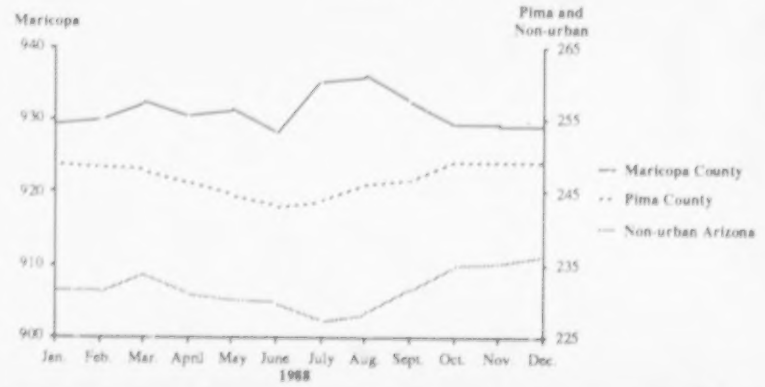
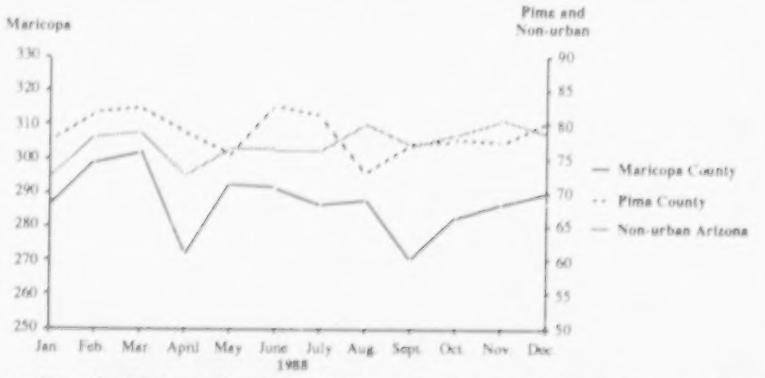


FIGURE III



Source: Figures I and II, Arizona Department of Economic Security. Figure III, Arizona Department of Revenue. Seasonal adjustment by the Center for Business Research, College of Business, Arizona State University.

REVISIONS

Changes to the employment and unemployment series produced by the Arizona Department of Economic Security necessitated updates to the coincident indexes. Contrary to the expectations of most economists, the revised employment figures for 1988 did not increase substantially, but rather dropped slightly. While this change did not have a large impact on the coincident indexes, the opposite was true of the substantive revisions to the unemployment series.

Though the annual average unemployment rate during 1988 was little changed by the revision, the monthly pattern was dramatically revised. Instead of a gradual increase throughout the year as originally reported, the unemployment rate rose considerably during the first half of the year, peaking in late summer. The rate fell sharply during the last two months of the year.

The figures for late 1988 are subject to further revision; such additional changes to 1987 data were still unavailable when this article was written. Thus, while further changes to the coincident indexes will occur next month, they will not affect the monthly changes shown in Table 1. In each geographic area, the revised coincident index shows weaker growth during the first half of 1988 than previously reported, but stronger growth during the last three months of the year.

– Tom R. Rex
Research Manager

FIGURE IV

VALUE OF COMMERCIAL BUILDING PERMITS, SEASONALLY ADJUSTED

Source: Center for Business Research, College of Business, Arizona State University.

TABLE 1

MONTHLY PERCENT CHANGE IN COINCIDENT INDEXES

	Maricopa		Pima		Non-urban	
1988	*Original*	*Revised*	*Original*	*Revised*	*Original*	*Revised*
February	.5	.0	.8	.2	–.5	–.2
March	.8	.2	.3	–.2	.6	.5
April	.2	–.4	–.8	–1.2	–.9	–1.4
May	.2	.2	–.6	–.8	–.5	–.3
June	–.2	–.3	.5	.4	.0	.0
July	–.2	.8	–.4	.3	–1.2	–.7
August	–.1	.1	.1	.2	.3	.2
September	–.9	–1.2	.2	.2	.1	.3
October	–.3	.6	.2	.8	.6	1.2
November	.7	1.4	.9	1.8	1.6	2.2
December	—	.9	—	.6	—	.4

Source: Center for Business Research, College of Business, Arizona State University.

Economy on hold: February purchasing indicators

The Arizona economy stalled in February, with both new orders and production at zero growth and employment down for the fourth month in a row. The only really positive factor was that the rate of inflation slowed somewhat.

While the Federal Reserve has made the fight against inflation its top priority and is keeping strong upward pressure on interest rates, slow or no growth seems in the cards for Arizona over the first half of 1989.

– Harold Fearon

Dr. Fearon is the National Association of Purchasing Management Professor in the ASU College of Business.

TABLE 1

FEBRUARY PURCHASING SURVEY

	Percent of Purchasing Managers Indicating Each Response (February compared to January)		
Key Indicators	*Higher*	*Same*	*Lower*
Prices paid for major commodities	47	49	4
Delivery time from vendors	31	59	10
Purchased materials inventory level	33	45	22
New orders received	31	38	31
Production	28	44	28
Employment	16	63	21
Purchases	39	36	25

Source: Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona.

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT						
(In Billions of Dollars, at Annual Rate)						
Arizona - Current Dollars	3rd Qtr.	60.034	1.6	5.4	NA	NA
Arizona - 1982 Dollars	3rd Qtr.	48.002	0.7	1.5	NA	NA
COINCIDENT ECONOMIC INDEXES						
(1982 = 100)						
Arizona	Dec.	145.7	0.8	2.7	NA	NA
Metropolitan Phoenix	Dec.	150.4	0.9	2.8	NA	NA
Metropolitan Tucson	Dec.	140.9	0.6	2.7	NA	NA
Non-urban Arizona	Dec.	132.8	0.5	2.3	NA	NA
CONSUMER PRICE INDEX (1982-84 = 100)						
Metropolitan Phoenix	4th Qtr.	122.5	1.3	5.1	NA	NA
INDEX OF LEADING ECONOMIC						
INDICATORS (1977 = 100)						
Arizona	Jan.	109.7	–0.7	–0.5	NA	NA
BUILDING PERMITS						
(Total Dollar Value in Thousands)						
Maricopa County	Dec.	230,315	–4	13	3,413,685	–11
Pima County	Dec.	27,892	–35	–39	464,226	–22
Balance of State	Dec.	85,239	55	88	720,508	8
Arizona	Dec.	343,446	1	16	4,598,419	–9
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	Dec.	1,243	0	–39	21,596	–24
Pima County	Dec.	204	–12	–18	5,073	–17
Balance of State	Dec.	634	–42	–35	9,878	–11
Arizona	Dec.	2,081	–19	–36	36,547	–20
HOME SALES						
Maricopa County - Number	Jan.	3,750	1	10	3,750	10
Maricopa County - Median Price	Jan.	82,275	–0.9	1.6	82,275	1.6
HOUSING AFFORDABILITY INDEXES						
Metropolitan Phoenix - New Homes	3rd Qtr.	92	–2.1	2.2	NA	NA
Metropolitan Phoenix - Resale Homes	3rd Qtr.	119	–1.7	5.3	NA	NA
MORTGAGE INTEREST RATES						
(Conventional, 30-year, Fixed-rate)						
Maricopa County	Feb.	10.7	0.0	8.1	NA	NA
POPULATION ESTIMATES (In Thousands)						
Maricopa County	4th Qtr.	2,037	0.6	2.2	NA	NA
Arizona	4th Qtr.	3,534	0.8	2.2	NA	NA
ELECTRICAL POWER SALES						
(In Millions of Kilowatt Hours)						
Arizona	Jan.	3,596	–1.5	7.9	3,596	7.9

NA = Not Applicable

Source: Center for Business Research, College of Business, Arizona State University.

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